

IN THE CLAIMS:

1. (Currently Amended) A method for positioning components to be joined together,
the method comprising:

positioning a multiaxially movable central module having a plurality of multiaxially
movable articulated arms within an inner space defined by the component, said plurality of
5 articulated arms being movable independent of the movement of said movable central module,
each articulated arm being independently movable and having a holding means located at an end
thereof;

10 extending said articulated arms, in a position within said inner space, from a folded
position to a clamping position, said holding means clamping said component in said clamping
position

wherein the components are held from a position within a desired arrangement of the
components to be joined by at least one movable central module with a plurality of articulated
arms (clamping device).

2. (Currently Amended) The method according to claim 1, wherein the clamping
device waits in a first rest position with folded in arms and/or arms applied to the central
module in a predetermined inoperative position, subsequently the components to be joined are
at least roughly assembled by further suitable handling devices, the clamping device being
5 positioned in a space within the components to be joined and then the components are clamped
by suitable positioning of the arms in the space.

3. (Currently amended) The method according to claim 1, wherein prior to a tacking together of the components, position measurements are performed on the components to be joined and if position deviations are established active position corrections are brought about by the clamping device plurality of articulated arms.

4. (Currently Amended) The method according to claim 3, wherein measured position values are buffer stored and after the detection of a deviation trends are used for the correction of a control program for the clamping device and/or for messages to a quality assurance unit.

5. (Currently Amended) The method according to claim 1, wherein following a subsequent tacking together of the components or further downstream production processes, the clamping device plurality of articulated arms independently again [[moves]] move out of the space within the components.

6. (Currently Amended) The method according to claim 1, wherein, following [[the]] a subsequent tacking together of the components or further downstream production processes, the clamping device is plurality of articulated arms are moved again out of the space within the components by a further handling device.

7. (Currently Amended) The method according to claim 3, wherein tacking together

is carried out by the actual clamping device plurality of articulated arms using suitable tools.

8. (Original) The method according to claim 1, wherein the arms are positioned synchronously in space in accordance with a control unit.

9. (Original) The method according to claim 1, wherein the arms are positioned asynchronously in space in accordance with a control unit.

10. (Currently Amended) The method according to claim 1, wherein movements of the arms take place in ~~in each case~~ at least three degrees of freedom in each case.

11. (Currently Amended) The method according to claim 1, wherein ~~the clamping device at least one articulated arm~~ is directly supported on a base part of the component structure.

12. (Currently Amended) The method according to claim 1, wherein the ~~clamping device plurality of articulated arms are~~ [[is]] supported on a conveyor element carrying the components.

13. (Currently Amended) A device for positioning components to be joined together, the device comprising:

5 wherein there is a freely multiaxially movable central module; and
a plurality of independently multiaxially movable articulated arms, which are movable
in space and said articulated arms being connected thereto to said movable central module, said
movable central module being movable within an inner space of the component, at least one
articulated arm having a and which in each case have at least one holding element for holding
the components component, said articulated arms extending from a folded position to an
extended position, said articulated arms being adjacent to said movable central module in said
10 folded position to form a compact positioning device, said articulated arms being extended in
said extended position such that said holding element grips the component.

14. (Original) The device according to claim 13, wherein the arms are constructed for movements with in each case at least three degrees of freedom.

15. (Original) The device according to claim 13, wherein a plurality of arms in each case has at least one tool for the connection of the assembled components.

16. (Original) The device according to claim 13, wherein it can be brought into a space within a desired arrangement of the components to be joined and following a subsequent tacking together of the components or further downstream production processes can be removed again therefrom.

17. (Original) The device according to claim 13, wherein there is a computer-based control unit.

18. (Original) The device according to claim 13, wherein the arms have means for media supply to the holding elements and/or tools.

19. (Original) The device according to claim 13, wherein the central module has means for media supply to the arms.

20. (Original) The device according to claim 13, wherein the central module has a power supply unit.

21. (Original) The device according to claim 13, wherein the arms are constructed for the provision of high static holding forces up to 3000 N.

22. (Currently Amended) The device according to claim 13, wherein each arm has its own control-relevant point or terminal control position (TCP).

23. (Currently Amended) The device according to claim 13, wherein the movable central module and plurality of articulated arms connected to said movable central module are latter is constructed for automatically moving into a space within the components to be joined.

24. (Currently Amended) The device according to claim 13, wherein the movable central module and plurality of articulated arms connected to said movable central module are latter is constructed for automatically moving out of the space within the components to be joined.

25. (Original) The device according to claim 13, wherein the arms can be folded in and/or applied to the central module.

26. (Currently Amended) The device according to claim 13, wherein there is at least one support mechanism for supporting the clamping device plurality of articulated arms on a component of the component structure and/or a component-carrying conveyor element.

27. (Original) The device according to claim 13, wherein on the arms and/or central module are provided sensors for recording measured position values for the components and/or further measured values relevant with respect to a quality assurance for the downstream production processes.

28. (Currently Amended) The device according to claim 26, wherein there is a storage unit for the buffer storage of [[the]] measured values.

29. (New) A method for positioning a component within an inner space for joining to

one more additional components, the method comprising:

providing a central module for multiaxial movement;

5 providing a plurality of articulated arms attached to said central module for movement therewith and for movement independently of movement of said central module, at least one of said articulated arms having a holding means located at an end thereof;

moving said central module by multiaxial movement, with said articulated arms in a folded position, from a starting location outside of the inner space of the component to a work position within the inner space;

10 extending one or more of said articulated arms within said inner space from the folded position to a clamping position;

clamping the component with said holding means in said clamping position.